

C 6080

Name.....

Reg. No.....

**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, JUNE 2010**

IT 04 406—COMMUNICATION SYSTEMS

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

- I. (a) Explain the principle of PPM system.
(b) Draw the block diagram of ASK generator and explain.
(c) Explain the concept of digital line of sight microwave link.
(d) Explain what is meant by regenerative repeater.
(e) With the help of ray theory explain the principle of light transmission in a fiber.
(f) Explain the structure of a PIN diode.
(g) What are the drawbacks of FDMA technique ?
(h) Explain the experimental setup for measurement of sensitivity.

(8 × 5 = 40 marks)

Part B

- II. (a) Explain with block diagram the operation of a PCM system. What are its drawbacks as compared to DM system ?

Or

- (b) Draw the block diagram of QAM demodulator and explain.

- III. (a) Draw the block diagram of microwave link communication and explain each block in detail.

Or

- (b) Draw the block diagram of a transmit receive satellite earth station and explain.

- IV. (a) Explain the functional operation of a fiber optic communication link highlighting the transmitter and receiver systems.

Or

- (b) Explain various light sources used for optical fibers.

- V. (a) Describe the general operating principles of a TDMA technique.

Or

- (b) What is high definition TV ? Explain.

(4 × 15 = 60 marks)